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# SCIENCE

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FRIDAY, AUGUST 16, 1895.

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## THE HODGKINS FUND PRIZES.

REPORT OF THE COMMITTEE APPOINTED BY THE SMITHSONIAN INSTITUTION TO AWARD THE HODGKINS FUND PRIZES.

THE Committee of Award for the Hodgkins prizes of the Smithsonian Institution

has completed its examination of the two hundred and eighteen papers submitted in competition by contestants.

The Committee is composed of the following members:

Dr. S. P. Langley, chairman, *ex-officio*; Dr. G. Brown Goode, appointed by the Secretary of the Smithsonian Institution; Assistant Surgeon-General John S. Billings, by the President of the National Academy of Sciences; Professor M. W. Harrington, by the President of the American Association for the Advancement of Science.

The Foreign Advisory Committee, as first constituted, was represented by Monsieur J. Janssen, Professor T. H. Huxley and Professor von Helmholtz; and after the recent loss of the latter, Dr. W. von Bezold was added. After consultation with these eminent men, the Committee decided as follows:

First prize, of ten thousand dollars, for a treatise embodying some new and important discoveries in regard to the nature or properties of atmospheric air, to Lord Rayleigh, of London, and Professor William Ramsay, of the University College, London, for the discovery of *Argon*, a new element of the atmosphere.

The second prize, of two thousand dollars, is not awarded, owing to the failure of any contestant to comply strictly with the terms of the offer.

The third prize, of one thousand dollars,

to Dr. Henry de Varigny, of Paris, for the best popular treatise upon atmospheric air, its properties and relationships. Dr. de Varigny's essay is entitled 'L'Air et la Vie.'

(Signed) S. P. LANGLEY,  
G. BROWN GOODE,  
J. S. BILLINGS,  
M. W. HARRINGTON.

AUGUST 9, 1895.

SUPPLEMENTARY REPORT OF THE COMMITTEE  
APPOINTED BY THE SMITHSONIAN  
INSTITUTION TO AWARD THE  
HODGKINS FUND PRIZES.

After having performed the function to which the Committee was called, as announced by the circular of the Secretary of the Smithsonian Institution, dated March 31, 1893, which function did not include the award of any medals, there remained several papers to which the Committee had been unable to give any prize but to which they had felt desirous to give some honorable mention, and on their representing this to the Smithsonian Institution they have been commissioned to do so, and also to give certain medals of silver and bronze which had been subsequently placed at their disposition.

The Committee has decided that honorable mention should be made of the papers, twenty-one in number, included in the following list, which also gives the full names, titles and addresses of the authors, and the mottoes or pseudonyms which in four instances were employed. To three of the papers a silver medal is awarded and to six a bronze medal.

HONORABLE MENTION WITH SILVER MEDAL.

Prof. A. L. Herrera and Doctor Vergara Lopez, of the City of Mexico: 'La Atmosfera de las altitudes y el bienestar del hombre.'

Mr. C. L. Madsen, ('Geo,') Helsingør, near Copenhagen, Denmark.

Thermographical Studies: Mr. F. A. R. Russell, of London, Vice President of

the Royal Meteorological Society of Great Britain: 'The Atmosphere in relation to Human Life and Health.'

HONORABLE MENTION WITH BRONZE MEDAL.

M. E. Deburaux-Dex and M. Maurice Dibos, ('Spes,') of Rouen, France: 'Etudes des courants aériens continentaux et de leur utilisation par des aérostats long-courriers.'

Doctor O. Jesse, of Berlin: 'Die leuchtenden Nachtwolken.'

Doctor A. Loewy, of Berlin: 'Untersuchungen ueber die Respiration und Circulation unter verdünnter und verdichteter Sauerstoffarmer und sauerstoffreicher Luft.'

Mr. Alexander McAdie ('Dalgetty'), of Washington: "The known properties of atmospheric air considered in their relationships to research in every department of natural science, and the importance of a study of the atmosphere considered in view of these relationships: the proper direction of future research in connection with the imperfections of our knowledge of atmospheric air and the conditions of that knowledge with other sciences."

Mr. Hiram S. Maxim, of Kent, England: 'Natural and Artificial Flight.'

Doctor Franz Oppenheimer and Doctor Carl Oppenheimer ('E pur si muove'), of Berlin, Germany: 'Ueber atmosphärische Luft, ihre Eigenschaften und ihren Zusammenhang mit dem menschlichen Leben.'

HONORABLE MENTION.

Mr. E. C. C. Baly, of University College, London: 'The decomposition of the two constituents of the atmosphere by means of the passage of the electric spark.'

Professor F. H. Bigelow, of Washington: 'Solar and Terrestrial Magnetism and their relation to Meteorology.'

Doctor J. B. Cohen, of Yorkshire College, Leeds, England: 'The Air of Towns.'

Doctor F. J. B. Cordeiro, U. S. N., of Washington: 'Hypsometry.'

Professor Emile Duclaux, of the French Institute, Paris, France: 'Sur l'actinométrie atmosphérique et sur la constitution actinique de l'atmosphère.'

Professor Doctor Gieseler, of Bonn, Germany: 'Mittlere Tagestemperaturen von Bonn, 1848-88.'

Doctor Ludwig Ilosvay von Nagy Iloosva, Professor in the Royal Joseph Polytechnic School, Budapest, Hungary: 'Ueber den unmittelbar oxydirenden Bestandtheil der Luft.'

Doctor A. Magelssen, of Christiania, Norway: 'Ueber den Zusammenhang und die Verwandtschaft der biologischen, meteorologischen und kosmischen Erscheinungen.'

Doctor A. Marcuse, of the Royal Observatory, Berlin, Germany: 'Die atmosphärische Luft.'

Professor C. Nees, of the Polytechnic School, Copenhagen, Denmark: 'The use of kites and chained air-balloons for observing the velocity of winds, etc.'

Surgeon Charles Smart, U. S. A., of Washington: 'An Essay on the Properties, Constitution and Impurities of Atmospheric Air, in relation to the promotion of Health and Longevity.'

Doctor F. Viault, of the Faculty of Medicine, Bordeaux, France: 'Découverte d'une nouvelle et importante propriété physiologique de l'Air atmosphérique (action hématogène de l'air raréfié).'

(Signed) S. P. LANGLEY,  
G. BROWN GOODE,  
J. S. BILLINGS,  
M. W. HARRINGTON.

AUGUST 9, 1895.

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*THE HISTORY, AIMS AND IMPORTANCE OF  
THE AMERICAN ASSOCIATION FOR THE  
ADVANCEMENT OF SCIENCE.*

THE year 1839 was one of great scientific activity in this country, and in the older States regularly organized geological and zoölogical surveys were in progress which

had called into the field nearly all the scientific men in the country in various capacities. Many of our earlier scientists owe their fame to the opportunities then offered for solving the great problems in science which were met at every step. At that time science was still in its infancy, and the officers of the several State Surveys felt the necessity of comparing notes and discussing results. As a consequence it was agreed upon among them to form an Association of Geologists and Naturalists which should meet every year and discuss the facts and theories which every man was working out in his own State.

The first meeting of this Association was in Philadelphia in April, 1840, under the presidency of Edward Hitchcock, the head of the Geological Survey of Massachusetts. The second meeting was also held in Philadelphia, the year following, with the eminent chemist, Benjamin Silliman, Sr., of New Haven, as President. This was followed by annual meetings in Boston, Albany, Washington, New Haven, New York, and again in Boston in 1847, under the succession of Presidents: S. J. Morton, Henry B. Rogers, John Lock, William B. Rogers, C. T. Jackson and William B. Rogers for a second time, all of whom were prominent in their respective lines of research and each of whom has left an honored mark on the annals of American science.

At the meeting of 1847 in Boston it was found that during the seven years of the existence of the Association the kindred sciences of mathematics, astronomy, physics, chemistry, geography and ethnology had gained many devotees in this country. Such advances had been made in these sciences as to show the necessity of broader views and more general coöperation among the workers in all departments of science. It was therefore resolved to enlarge the scope of the existing association and to